

Cancel Claims 19, 20, 21, 22 and 24 without prejudice.

R E M A R K S

Upon entry of this amendment, newly submitted Claim 25, together with its newly amended dependent Claims 2 and 4-18 shall be the only claims pending in this application. As yet, no claim has been allowed.

By this amendment the pending claims have been amended and presented so as to more accurately and precisely define the invention, to patentably distinguish over the prior art and to place all the pending claims in condition for allowance. The pending claims now better define the invention with greater accuracy and precision and patentably distinguish the claimed invention over the prior art.

Complete support for the amendment to the claims is to be readily found in the application as submitted. Further, with respect to the requirement in the claims, as stated in newly submitted Claim 25, that the amino acid sequence comprising the nonapeptide fit in the grooves on top of the MHC Class I molecule, the Examiner, for support, is further referred to page 2, lines 11-15 of the WO-3-93/22338 publication of the subject application.

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It is called to the Examiner's attention that there are now

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only presented in this application substance claims, or peptide composition claims. The method claims, particularly the method claims having prophylactic or therapeutic use of these materials have been cancelled. Cancellation of these claims, specifically Claims 19, 20, 21, 22 and 23 serves to expedite the prosecution of this application towards allowance by reducing the number of issues involved. Further, as indicated hereinabove, the newly submitted or newly amended claims, patentably distinguish over the prior art, particularly the references cited by the Examiner in calling for and requiring that the peptide has the ability to fit or bind in the grooves on top of the MHC Class I molecule. By so doing, because the fit of the peptide in the grooves is of such quality, antibodies against the peptides will not be able to bind to them once they are bound, fitted or buried in the grooves. It is submitted that this aspect of the invention alone serves to patentably distinguish applicants' claimed invention over the prior art.

In the Office Action the Examiner stated that the Information Disclosure Statement filed January 4, 1994 failed to comply with 35 CFR 1.93(a)(3) because it does not include a concise explanation of the relevance of the information provided. The Examiner mentioned that it has been placed in the application file but the information referred to therein has not been considered on the merits. The Examiner mentioned that applicants stated that a substitute Information Disclosure Statement would be filed but that it has not

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been received. In this connection applicants refer to the Communication received by the Patent Office on April 7, 1995 wherein applicants set forth the relevance of the publications referred to in applicants' previously submitted Information Disclosure Statement. It was believed that this Communication would satisfy the Examiner with respect to the content and relevance of the publications referred to in applicants' previously submitted Information Disclosure Statement. If the Examiner should still consider that a new Information Disclosure Statement be submitted applicants would be pleased to so submit.

The Examiner had previously objected to the specification and claims in that applicants' disclosure is not enabling and does not provide sufficient evidence of a method of prophylactic or therapeutic treatment of a human by administering peptide from HPV proteins. By this amendment those claims directed to a prophylactic or therapeutic treatment have been cancelled, Claims 19, 20, 21, 22 and 24, thereby eliminating this issue from the prosecution of this application.

The Examiner in the Office Action, however, rejected the pending claims based on 35 USC 102(b) or 103 as obvious over Schoolnik et al, previously cited. According to the Examiner, the teachings of Schoolnik et al anticipate the claimed invention by disclosing a peptide from HPV protein wherein the peptide binds to MHC Class I molecule. The Examiner then took the position that the

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compositions of Schoolnik et al are believed to inherently possess properties which anticipate applicants' invention or would render applicants' claims obvious.

Applicants have carefully considered this basis for rejection of claims on Schoolnik et al but respectfully submit that applicants' claimed invention as presently amended and presented now patentably distinguishes over the prior art including the disclosures of Schoolnik et al. It is believed that the Examiner in the outstanding Office Action indicated more favorable consideration would be given to the claims amended so as to be directed to nonapeptide sequences from E6 and E7 genes of HPV 16 and HPV 18. To this end applicants have so amended all the pending claims.

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said?*

Concerning the Schoolnik et al reference, applicants point out that the binding of the peptides of Schoolnik et al to MHC Class II molecules is not mentioned or disclosed. In fact, MHC Class I molecules are not mentioned at all by Schoolnik et al. A person skilled in the art would not be able to conceive on the basis of Schoolnik et al that it is possible to fit the peptides of applicants' invention in the grooves of said molecules and certainly realize that the fit of applicants' peptides in the grooves would be firm and signu and of such quality that antibodies against the peptides would be able to bind to them once they are fitted or buried in the groove.

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The Examiner is further referred to applicants' comments on the Schoolnik et al reference set forth in substantial detail in the applicants' amendment filed April 7, 1995 in this application, see particularly pages 4-11 of this amendment. The Examiner is specifically requested to again review applicants' statements with respect to the Schoolnik et al reference set forth in applicants' amendment filed April 7, 1995. For this application applicants hereby incorporate these comments in this amendment.

Further, with respect to Schoolnik et al, applicants again assert that Schoolnik et al in no way would describe or suggest to one skilled in the art applicants' invention and any perception of that by the Examiner which appear to be erroneous. None of the epitopes disclosed by Schoolnik et al is the same as any of applicants' claimed peptides. The Schoolnik et al peptides disclose epitopes which would induce antibody (B cell) responses but not CTL responses, which are the subject of applicants' invention. Applicants' peptides fit so snugly in the groove of HLA Class I molecules that antibodies against applicants' peptides, once they are buried in the groove are not formed.

Applicants' explain at length the patentable differences between applicants' claimed peptides and the peptides of Schoolnik et al, see the amendment filed April 7, 1995 in this application, particularly pages 9, 10 and 11 of applicants' amendment.

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Further, with respect to the Examiner's mention that certain of the claims, Claims 5, 6, 8, 10, 12 and 14 are objectionable based on 35 USC 112, second paragraph, as being set forth in improper Markush format, these claims have now been amended along the lines suggested by the Examiner so as to overcome this objection to the claims. It is believed that the Examiner's objection to the claims has been understood and has now been overcome by applicants' amendments to these claims. Therefore, it is submitted that upon entry of this amendment this application should receive more favorable consideration and should place this application in condition for allowance.

Accordingly, entry of this amendment, favorable consideration of the newly submitted and newly amended claims and allowance of all the pending claims are earnestly solicited.

Respectfully submitted,

*I hereby certify that this  
paper is being deposited this  
date with the U.S. Postal  
Service in first class mail  
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